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Are You Ready for Winter?

By: Chris Miller, Warning Coordination Meteorologist

Typically, the state of Illinois experiences five severe winter storms each year. There has never been a winter in Illinois without at least one severe winter storm in the past century! Also, in the past 100 years, there have only been five winters when the temperature has not fallen to 0 °F or colder. **All of these facts lead to the same conclusion – winter is coming soon and we need to be prepared.**



Blizzard conditions at the NWS office on February 1. The radar tower (about 2/10 mile away) is barely visible in the image.

This past winter on February 1st and 2nd a blizzard impacted central and northern Illinois, while a major ice storm struck south central and southeast Illinois. Record snowfall was reported in many locations, with amounts ranging from 10" to 23" in central, western and northern Illinois. Wind gusting from 40 to 60 mph created drifts several feet high.

In addition, more than 4" of sleet and severe icing of trees and power lines impacted areas of south central and southeast Illinois - where power outages lasted nearly a week.

Roads were closed, including many interstates, and nearly 4,000 people had to be rescued across the state by the

Illinois National Guard and local emergency officials. Schools and businesses were closed - bringing much of the state to a standstill.

Nearly 60% of Illinois was declared a Federal Disaster area, and almost half of the United States was affected by this same storm. Warnings for the storm were issued almost 30 hours ahead of time. Did you heed the warnings? Did the storm impact you - and were you ready for the conditions?

Winter Storm Preparedness Week in the state of Illinois will be November 13th – 19th. Use this time to prepare yourself, your home, auto and business for the inevitable winter weather which will be upon us soon.

For tips about how to prepare for winter weather, visit our web page at: <http://www.crh.noaa.gov/ilx/?n=winter>

NOAA Issues Winter Weather Outlook

For the second winter in a row, La Niña will influence weather patterns across the country, however it is not the only climate factor involved. This year, the lesser-known and less predictable Arctic Oscillation could produce dramatic short-term temperature swings across the nation.

NOAA expects La Niña, which returned in August, to gradually strengthen and continue through the upcoming winter. It is associated with cooler than normal water temperatures in the tropical Pacific Ocean, and influences weather throughout the world.

While the Arctic Oscillation is always present, it fluctuates between positive and negative phases. The negative phase pushes cold air into the U.S. from Canada. Strong episodes typically last a few weeks, and are difficult to predict more than 1 or 2 weeks in advance.

The lower left image shows the temperature outlook for December through February (the period considered to be “meteorological winter”). Odds tilt toward a colder than normal winter across the northern part of the

U.S. and the West Coast, and warmer than normal conditions across the southern Rockies into the lower Mississippi Valley.

The lower right image shows the precipitation outlook for the same period. Odds tilt toward wetter than normal conditions across a large portion of the northern half of the country, except for New England. Drier than normal weather is favored from the Desert Southwest into the southern Plains, as well as the southeast U.S and eastern Alaska.

The outlooks do not project where and when snowstorms will hit, or provide seasonal snowfall accumulations. Snow forecasts are dependent upon winter storms, which are generally not predictable more than a week in advance.

While increased odds of wetter than normal conditions are indicated for central and southeast Illinois, the temperature forecast is less clear. The latest outlook from the Climate Prediction Center shows equal chances of above normal, below normal, or near normal temperatures.

**Full outlook
details are
available at**

www.noaa.gov



Seventeen Years at ILX!

By: Ernest Goetsch, Meteorologist in Charge

This month marks 17 years that I have been at the Central Illinois National Weather Service office (ILX) in Lincoln. Time sure flies by!

I arrived in October on 1994 as the Meteorologist in Charge of a new weather office in Lincoln. Construction of the office was completed that month, and I was the first staff member to arrive. Other employees arrived by the end of 1994, and over the years our numbers grew to the current level of 23.

Equipment over the years has also changed drastically. Starting with an empty office in 1994, we first received the upper air system and began sending up weather balloons in February of 1995. The WSR-88D Doppler radar arrived in May of 1995. Initially, our computer system to issue products was an old "black and white" system called "AFOS". In 1998, we received the current high tech system called "AWIPS", in which graphics are now in color and data can be displayed in countless ways. The NOAA Weather Radio system arrived at the office in 1995, and initially used eight track tapes, which the staff had to record manually. Now the system is totally automated and the voice is computerized. Technology continued to advance, as we now even have "chat rooms" for reaching emergency managers, and even have a "Facebook" page. Yes, things have surely changed a lot!

Weather over the years has also been a thrill! We have been through some major events that really bring back memories. We had our first big tornado event on May 9, 1995, with the Cantrall/Elkhart tornado that went just 2 miles south of our office (coming a little too close to the newly installed Doppler radar!). Our first major blizzard was January 1-2, 1999. That was the first time that members of the staff had to "camp out" in the office, sleeping on cots when they were off duty, not able to get home due to the storm. Two other storms had similar effects, the February 12-14, 2007 blizzard and of course the famous, Groundhog Day Blizzard of 2011. Winter in central Illinois also comes with its ice storms. One of worst ones was the November 30 to December 1, 2006 storm that paralyzed a major section of the region.

Severe weather has also been a challenge in the past 17 years. After the May 1995 storms, 1996 came with the April 18 and 19 storms when Decatur was hit by two tornadoes within 24 hours. 2003 brought major outbreaks in May with the May 10th South Pekin tornado. The worst tornado in the last 17 years in central Illinois was the Roanoke tornado of July 13, 2004. That was an EF4 tornado that hit the Parsons manufacturing plant. In 2006, two tornadoes hit the city of Springfield on March 12, but with no fatalities!

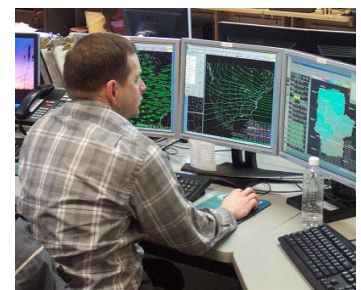
Yes, 17 years at Lincoln has been a challenge, but has been extremely rewarding. Serving the citizens of central Illinois in protecting life and property is a great job that I would not ever give up. We have a great, highly dedicated staff at ILX, and I really look forward to working into the future for all the people of central Illinois.



Construction of the Doppler radar, spring 1995.



Comparisons of the old and new computer systems: AFOS (above) and AWIPS (below).



Petersburg Observer Presented with John Campanius Holm Award

By: Billy Ousley, Data Acquisition Program Manager

Recognizing over 25 years of dedication, the National Weather Service (NWS) has named Petersburg resident Mary Ortgessen the recipient of the John Campanius Holm award for outstanding service in the Cooperative Weather Observer program. The award is the agency's second most prestigious, and only 25 are presented each year to deserving cooperative weather observers from around the country.

The award is named in honor of John Campanius Holm, a Lutheran minister who was the first person recognized to have taken systematic weather observations in the American Colonies, from 1644-1645.

Data Acquisition Program Manager Billy Ousley of the Central Illinois Weather Forecast Office in Lincoln presented the award during a ceremony on October 18, at the "Oaks on Seventh" restaurant in Petersburg. Other NWS representatives included Service Hydrologist Darrin Hansing, and meteorologist interns Eric Laufenberg and Emily Timte.

The National Weather Service Cooperative Weather Observer Program has given scientists and researchers continuous observational data since the program's inception more than 100 years ago. Today, more than 8,000 volunteer observers participate in the nationwide program to provide daily reports on temperature, precipitation, and other weather factors, including important river stage readings.

Mary has had a long career in weather. Before retiring in 1979 and moving to Petersburg, she had spent 32 years working for the Chicago NWS office as a weather observer and pilot weather briefer. She became an official observer at Petersburg station on March 28, 1985, after the Springfield NWS office requested her help in providing daily precipitation, snow data and river stage reports along the Sangamon River.

Why do cooperative observers do it? Some simply have a real interest in weather. Others see their service as a civic duty. In a letter supporting Mary's nomination for the award, Billy Ousley noted: "I have observed Mary as a Cooperative observer, civic minded resident of her community and friend... She is a woman of utmost integrity and one who displays a genuineness that reflects the fact that she is true to herself in all that she does. It is her leadership style coupled with Mary's integrity and genuineness of character that make her a quality candidate for any award that recognizes volunteer work done in the true spirit of volunteerism."



Billy Ousley presents the John Campanius Holm Award to Mary Ortgessen of Petersburg on October 18.

Frequently Asked Questions: Winter Precipitation

By: Chris Miller, Warning Coordination Meteorologist

With winter weather on the horizon, people often ask about the different types of precipitation which can occur from snow to sleet to freezing rain. Much of central Illinois experiences freezing rain and sleet an average of three to five times each winter – more than most places in the Midwest. In this version of “Frequently Asked Questions” I will discuss the various types of winter precipitation.

Question: Is there a difference between sleet and freezing rain?

Answer: These two terms are used interchangeably by many people – but they are quite different. Sleet is a small frozen ball of ice, often about 1/8” in diameter or so. It is created when a raindrop falling from a cloud freezes into a little sphere of ice before it hits the ground. Sleet bounces when it strikes ground based objects. Typically sleet will only persist for a couple of hours and accumulate to less than one-half inch. However, a major storm on February 1st – 2nd this past winter produced sleet for several hours, which accumulated up to four inches deep in parts of east central Illinois!

Freezing rain is precipitation that falls from the cloud as a raindrop, and does not freeze until it accumulates on the ground or on objects like autos, trees and power lines. The ice that builds up makes driving and walking outdoors very hazardous. It can also do significant damage to power lines and trees, causing extended power outages. Whenever we are anticipating a significant accumulation of ice which may cause damage – typically ¼” or more in thickness – an *Ice Storm Warning* is issued.

Question: I thought that if the temperature was below freezing it would snow?

Answer: Not necessarily. The key is not the air temperature near the ground, but the air temperature several thousand feet up in the clouds.

There have been cases when rain was falling from the clouds with surface air temperatures in the teens (which quickly became ice when it accumulated on the ground – aka freezing rain), and there have been times when it has snowed with surface air temperatures in the upper 30s. Thus, weather instruments known as radiosondes, attached to weather balloons, are critical to forecasting winter precipitation types since they can measure the temperatures high in the atmosphere.

Many winter storms produce temperatures above freezing in the clouds, which can lead to sleet and freezing rain instead of snow. In fact, “supercooled” water drops can also exist in clouds with temperatures as cold as 15 °F! This is because at temperatures near 32 °F “pure” water can freeze. The water droplets in our atmosphere are not “pure” water because of dust, smoke and other small particles in the air, thus they have a colder freezing point.

If you have a weather question you would like us to answer in a future newsletter, send an E-mail to chris.geelhart@noaa.gov.

Sleet is a small frozen ball of ice, while freezing rain falls as liquid and then freezes on contact with an object.



A tree is bent over due to the weight of the ice on it, caused by freezing rain. Photo by Darrin Hansing.

Focus on NWS Staff Members

Emily Timte Meteorologist Intern

Hello Central Illinois! My name is Emily Timte, and I wanted to introduce myself as I am the newest meteorologist intern here in Lincoln. Some of my regular duties include launching upper air balloons, taking cooperative observer reports, as well as monitoring river levels and the NOAA Weather Radio-just to name a few. I was born in Columbus, Ohio then moved to Richmond, Virginia in elementary school. I remained there until I went off to college at North Carolina State University (Go Wolfpack!) where I earned a Bachelor of Science degree in Meteorology in May of this past year. I was always fascinated by the weather, but I knew I wanted to study it after Hurricane Isabel went through Virginia in 2003. Throughout college, I interned with the chief meteorologist at a local TV station and also went through the Student Career Experience Program (SCEP) at the National Weather Service office in Wilmington, NC, where my NWS career began. Outside of work, I love to travel- especially to Europe! I have been to Paris, Venice, Rome, Capri, and Florence (my favorite!). I am excited to join the staff here and cannot wait to experience life and weather in the Midwest!



James Auten Senior Meteorologist

Hi, my name is James Auten. I am one of the 5 Lead Forecasters in the office. I have been a forecaster in the office since May 1995 and am one of the original 5 forecasters that started after the office was first open. Prior to becoming a forecaster in Lincoln, I was an Intern at the NWS office in Springfield, IL. I started there in March 1993, which is when I began my career in the NWS. Prior to my NWS career, I was in the Air Force. During the 6.5 years that I was in the Air Force, I was stationed at Scott AFB, IL, just east of St Louis, MO; in west central Germany; and south central New Mexico. While in the Air Force, I worked with local and regional climatology studies; and provided multiple forecasts for military pilots flying over parts of Europe, the Middle East, and the US. I continue to remain active in the military as an Air National Guard member, and am connected with the unit at the airport in Springfield, IL.

My interest in weather began in May 1970, in Lubbock, TX, when I experienced my first tornado. Though not old enough to understand at the time, I do remember being scared to death and being taken into an underground bomb shelter at the house next door to my grandfather's house, where we were living. The next day, my grandfather piled us in his car and we drove around town looking at all the tornado damage and flooding. Tornado ratings were not around at the time, but later, the Lubbock tornado was rated an F5. From then on I was interested in weather. Fortunately for me, my dad was a weatherman in the Air Force. I experienced another possible tornado in Illinois a few years later and then experienced several Tropical Storms in the south Pacific as a teenager, when my dad was stationed on Guam. As I went through high school, I knew I wanted to be a meteorologist. After high school, I attended the University of Nebraska in Lincoln, NE. There I received my Bachelor of Science degree in Meteorology/Climatology in 1986. After college I entered the Air Force.



During my 18 year career in the NWS, all in central Illinois, I have forecasted and experienced a wide range of weather events; to include tornadoes, floods, ice storms, and blizzards. However, I am more fascinated with tornadoes and long-lived damaging wind events, than any of the other weather event. I enjoy being in the office during these type of severe weather events. It is stressful and challenging at times, but very rewarding when I think that our warnings or statements probably saved lives.

Besides forecasting, my job also involves speaking to the public at times. I enjoy talking to the public about severe weather and educating people to be spotters during severe weather season. I also enjoy talking to kids at schools and other events, hoping that my excitement for weather will rub off on them, and maybe one day, one of them will want to be a forecaster too.

NWS National Week of Community Service

by: Ed Shimon, Senior Meteorologist

The National Weather Service (NWS) held an inaugural National Week of Community Service from Sunday, September 25, to Saturday, October 1. All employees of the NWS were urged to volunteer their time and talents in their local communities, to help those in need. The NWS has a leadership program, with the premise that leaders must first be dedicated servants. Only then can one gain the respect of those they expect to lead. One main hope of the campaign was to shed a positive light on the lives of those we serve, and enhance our servant leadership skills at work and home.



On Tuesday, September 27, meteorologist Ed Shimon volunteered at the Lincoln/Logan County Food Bank. The food bank has a clientele of around 400 families. During the 2 hours it is open on Tuesdays and Thursdays, around 40 to 50 families are able to utilize the Food Bank services. About 12 to 15 people regularly volunteer at the Food Bank when it is open, each person assigned specific duties to make the operation run smoothly and efficiently.

Ed was humbled by the time spent at the Food Bank, learning a great deal about how the generosity of others can go a long way to help struggling families survive in these tough economic times. The staff at the NWS also regularly gathers gifts for Toys for Tots in December each year, as part of its effort to give back to the community.



**Remember that
Standard Time
resumes on Sunday,
November 4, at
2 am. Clocks
should be set back
one hour before
going to bed the
previous night.**

National EAS Test on November 9

The Federal Emergency Management Agency (FEMA) will be conducting a nationwide test of the Emergency Alert System (EAS) next month. The test will be done to assess the readiness and effectiveness of the national EAS network, and to identify improvements.

The national test will be conducted on **Wednesday, November 9**, at approximately 1 pm CST. It will be heard on local, cable and satellite TV for about 3 minutes. The audio messages will indicate that it is a test, however it is possible that scrolling video messages may not acknowledge that a test is ongoing.

The National Weather Service (NWS) routinely contributes to the EAS by broadcasting severe weather watches and warnings, as well as non-weather-related hazardous messages upon request by local or state emergency officials. This EAS test will not be broadcast over NOAA Weather Radio (NWR) stations, as it is intended to test other parts of the emergency communications system. However, to avoid any confusion, the required weekly test that is normally done on NWR on Wednesday will instead be conducted that week on **Tuesday, November 8**, between 11 am and noon CST. If there is a potential for severe weather that day, then the weekly alarm test will be canceled for the week.

CoCoRaHS Participants Needed



CoCoRaHS stands for "Community Collaborative Rain, Hail and Snow Network". It is a non-profit, community-based network of volunteers of all ages and backgrounds, working together to measure and map precipitation.

Illinois was the 13th state to join the network, and there are now observers in all 50 states. The Illinois network is coordinated by the Illinois State Water Survey, the National Weather Service, and the University of Illinois Extension—National Resources Management Team.

Several counties in central and southeast Illinois have few or no observers in the CoCoRaHS network. Areas that are in most need of observers are:

- **Cumberland, Marshall, Schuyler, and Scott** Counties currently have no observers anywhere in the county.
- **Cass, Clark, Clay, Crawford, De Witt, Mason, Richland, and Shelby** Counties all have only one or two observers.

If you are interested in helping out, or you have any questions, please contact Darrin Hansing at our office at Darrin.Hansing@noaa.gov. Or, you can visit the Illinois CoCoRaHS homepage at <http://www.cocorahs.org/state.aspx?state=il>

Summer Climate Statistics:

Peoria:

- Average temperature: 76.1° F (2.4° F above normal)
- Total precipitation: 9.21" (1.41" below normal)
- 29 days with highs 90° F or above

Springfield:

- Average temperature: 77.3° F (3.1° F above normal)
- Total precipitation: 7.65" (3.99" below normal)
- 40 days with highs 90° F or above

Lincoln:

- Average temperature: 74.2° F (0.8° F above normal)
- Total precipitation: 9.32" (3.98" below normal)
- 24 days with highs 90° F or above

Normals based on the 1981-2010 period

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NWS Receives High Marks in Customer Satisfaction

NOAA's National Weather Service ranks in the top 15 percent of federal agencies for customer satisfaction, according to a recent public survey. With an essential public safety mission, the agency rated 84 on a scale of 0 to 100 – a score considered “excellent” by independent survey firm Claes Fornell International (CFI).

CFI conducted the survey for the National Weather Service between May 21 and June 23, 2011, tripling the number of respondents from the previous year to 33,000 – 94 percent of whom were private citizens. CFI measured customer satisfaction with the American Customer Satisfaction Index (ACSI), the standard methodology used across public and private sectors to evaluate public opinion and help prioritize organizational changes that will improve the customer experience.

“The National Weather Service can be proud of this strong score,” Rodger Park of CFI recently told National Weather Service staff as he announced the survey results. “You can count yourself among the best in class.”

The 2010 average ACSI score for all government services is 65, while the public gives the private sector an overall ACSI score of 76.

Improving the public's experience with federal government agencies is a priority for the Obama administration. In April 2011, President Obama signed an executive order to improve customer service throughout the federal government. The order requires agencies to develop a customer service plan, streamline service delivery and improve the experience of its customers. The order also requires agencies to solicit customer feedback of government services and use this feedback to make service improvements.

“I am proud of the strong score we earned from the public, but what I also see here is an opportunity for the National Weather Service to become even better,” said Jack Hayes, director of the National Weather Service. “We'll use the results of this survey to improve our services to American taxpayers and to become a more weather-ready nation.”

The survey asked respondents to rate National Weather Service performance in the areas of routine climate, water and weather forecasts and services, dissemination services, support services, and severe weather awareness outreach.

Respondents gave the agency strong scores for meeting customer needs and providing ease of understanding across all weather forecasts and outlooks. Warnings for top weather threats – primarily tornadoes, severe thunderstorms and winter storms – scored well across the country for understanding, timeliness and accuracy. The agency also scored well in support services, such as professionalism, knowledge, interpreting weather information, accessibility, responsiveness and resolving complaints.

The survey also showed that one-third of Americans base job-related decisions on information received by the National Weather Service. Survey respondents overwhelmingly indicated they are highly likely to use products and services from the National Weather Service in the future, and would recommend these services to others.